State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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February 18, 1997

Mr. Alan Wilson
Senior Reclamation Engineer
Hecla Mining Company
6500 Mineral Drive
Coeur d'Alene, Idaho 83814-8788

Re: Request to Plug Escalante Tailings Impoundment Underdrain, Hecla Mining Company (Hecla), Escalante Silver Mine, M/021/004, Iron County, Utah

Dear Mr. Wilson:

Thank you for your letter received December 12, 1996, which requests Division approval to stop monitoring the tailings impoundment underdrain discharge and to allow Hecla to plug the pipeline. I'm sorry for the delay in providing a more timely response. By letter dated February 12, 1994, the Division (with BLM and DWQ concurrence) required Hecla to continue monitoring the underdrain discharge for at least two years following closure and reclamation of the tailings impoundment.

Your recent request included records of underdrain discharge rates taken over the past six years (9/90 - 11/96). A continuous decreasing trend is noted from an initial 10 gallons per minute (g.p.m.) discharge rate, to the latest 0.19 g.p.m. measurement. I forwarded your latest submittal to DWQ and the BLM for their review. After consulting with representatives from both agencies we agreed that it is probably acceptable to plug/seal the underdrain pipeline with the following condition.

We noted that there was no water quality information included with the discharge measurements taken from the impoundment during the monitoring period. We acknowledge that our February 12, 1994, letter did not specifically direct Hecla to perform water quality sampling. However, we assume that Hecla would have collected and analyzed a few water quality samples over this monitoring period to determine what changes (if any) were occurring with the cyanide levels and related chemical constituents over time.

Therefore, before Hecla proceeds to plug the underdrain system (and reclaim the process solution storage area), we request that any underdrain water quality measurements taken during the monitoring period be forwarded for our review. If no water quality information is available, then at least one additional underdrain water quality sample must be taken and analyzed for the suite of chemical parameters as provided by DWQ (see attached list).

We thank you for your patience and look forward to the receipt of the additional water quality information and the final pipeline plugging design plans. Please include any additional information that may pertain to your plans for the closure and/or final reclamation of the process solution storage area. If you have further questions in this regard, please contact me at (801) 538-5286.

Sincerely,

D. Wayne Hedberg

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
attachment
cc: Mack Croft - DWQ
Gina Ginouves - BLM, Beaver River RA
Minerals staff (route)
M021004.tlg

TABLE 1
GROUND WATER QUALITY STANDARDS

Parameter	Milligrams per liter (mg/l) unless noted otherwise and based on analysis of filtered sample except for Mercury and organic compounds	
PHYSICAL CHARACTERISTICS		
Color (units)	15.0	
Corrosivity (characteristic)	noncorrosive	
Odor (threshold number)	3.0	
PH (units)	6.5 - 8.5	These should be analyzed for as well as TDS and do common constituents including N_a, C_a, K, SO_4, CL, HCO_3, etc.
INORGANIC CHEMICALS		
Cyanide (free)	0.2	
Fluoride	4.0	
Nitrate (as N)	10.0	
Total Nitrate/Nitrite (as N)	10.0	
METALS		
Arsenic	0.05	
Barium	2.0	
Cadmium	0.005	
Chromium	0.1	
Copper	1.3	
Lead	0.015	
Mercury	0.002	
Selenium	0.05	
Silver	0.1	
Zinc	5.0	
ORGANIC CHEMICALS		
Pesticides and PCBs		
Alachlor	0.002	
Aldicarb	0.003	
Aldicarb sulfone	0.002	
Aldicarb sulfoxide	0.004	
Atrazine	0.003	
Carbofuran	0.04	
Chlordane	0.002	